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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

BEFORE THE

Federal Communications Commission

WASHINGTON, D. C. 20554

In the Matter of	)	
	)	
Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service	)	MM Docket No. 87-268

TO: The Commission

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COMMENTS OF
HOLSTON VALLEY BROADCASTING CORPORATION

Holston Valley Broadcasting Corporation, licensee of UHF Television Broadcast Station WKPT-TV, Kingsport, Tennessee and Low Power Television Stations WAPK-LP and WVMP-LP, Kingsport, Tennessee, WAPG-LP, Greeneville, Tennessee, WAPW-LP, Abingdon/Washington County, Virginia and WAPM-LP, Whitesburg, Kentucky (HVBC), hereby respectfully submits its Comments in the above-entitled matter. Those Comments are contained in the attached statement, which has been prepared and signed by George E. DeVault, Jr., President of HVBC.

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Respectfully submitted,

HOLSTON VALLEY BROADCASTING CORPORATION

By _____

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November 22, 1996

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COMMENTS OF HOLSTON VALLEY BROADCASTING CORPORATION

Background and Introduction

1. Holston Valley Broadcasting Corporation (Holston) hereby presents its comments on the Commission's Sixth Further Notice of Proposed Rule Making on Advanced Television Systems (ATV). Holston is the licensee of full-service television station WKPT-TV; channel 19; Kingsport, Tennessee, and four television translator stations located in various communities in Tennessee and Virginia, which rebroadcast WKPT-TV. WKPT-TV is also rebroadcast by three other non-co-owned translators located in other Virginia communities. Holston is also the licensee of two originating Low Power Television (LPTV) stations, WAPK-LP, channel 30, and WVMP-LP, channel 56, both licensed to Kingsport, Tennessee, and three other LPTV stations in Kentucky, Virginia, and Tennessee, which largely rebroadcast WAPK-LP. AM and FM stations and FM translators all located within the Johnson City-Kingsport-Bristol, TN/VA MSA are also licensed to Holston.

2. Although Holston is vitally interested in practically all of the many issues raised in the instant notice, Holston's primary

concerns with the Commission's ATV proposals lie in three areas to which it will limit its comments:

1) The Use of VHF channels for ATV

2) The relative power levels proposed for various full-service ATV stations and the competitive effect on present UHF licensees of the power levels currently proposed

3) The treatment of LPTV and to a lesser degree TV Translator stations

Assignment of VHF Channels for ATV

3. The Commission proposes to ultimately re-package broadcast television into the frequencies presently occupied by VHF channels 7-13 and UHF channels 14-51 and to utilize for ATV other channels outside those bands during the period of transition. Holston advocates making all DTV transmissions UHF.

4. Although Holston did not personally observe the over-the-air ATV tests conducted in Charlotte, NC, the undersigned has spoken at length with a number of engineers who observed the tests. Universally, we have heard that due to the impulse noise common at VHF frequencies, both picture and sound of VHF ATV at the proposed power levels (of 12 decibels below that used for supposedly comparable NTSC analog transmission) can be frequently interrupted. Following such impulse noise-induced interruptions, we are told, up to a second or more time may be required for signal restoration.

5. A television picture is a complex thing, and when the simultaneous transmission of multiple standard definition pictures or an HDTV picture plus several channels of "CD Quality" sound and various data are all combined, it is understandable that such interruptions could result in "wiping out" the consumer's signal for anywhere from a fraction of a second to a few seconds. Imagine the viewer's chagrin when such interruptions occur during a climactic scene in a drama or while "the big play" is in progress in a sporting event.

6. Such impulse noise is especially prevalent on VHF channels 2 tgrough 6, channels which the Commission's draft table of allocations assigns to a number of ATV operations during the transition period. Such noise will be even more troubling given the exceptionally low power levels of as little as a fraction of a kilowatt proposed for low band VHF ATV operation.

7. Conversely, we are told that the tests revealed no such difficulties at UHF frequencies, where impulse noise is seldom encountered, and it has long been anticipated by the industry at large that ATV would be located exclusively in the UHF band.

8. Placing ATV exclusively in the UHF would avoid the need for any station to construct ATV transmission facilities on VHF channels, facilities including transmitters, antennas, modulation monitors and other accessories, many of which would be useless

after the final "re-packing" of the broadcast television spectrum.

9. On the other hand, modern UHF transmitters can be operated throughout the UHF band with only minor modifications, and modern transmission lines will typically work at any UHF frequency. Essentially only the antenna itself would have to be replaced when such a facility is moved from one UHF channel to another.

10. When the time for "re-packing" arrives, the cost efficiency achieved by simply moving an ATV facility from one UHF channel to another UHF channel versus in some cases the abandonment of a relatively new VHF ATV transmitting facility and the purchase of completely new UHF ATV transmission facilities is obvious.

11. Once the transition to ATV and re-packing are completed, all twelve of the existing VHF channels would be vacant and auctionable ----- a full seventy-two megahertz of prime spectrum "real estate" in the VHF band, which is traditionally more suitable and desirable for land mobile operations than is UHF spectrum. While land mobile operations are also transitioning to digital versus analog transmission, the far more narrow bit streams required for voice and data will not be nearly as adversely affected by impulse noise encountered in the VHF band as will the broad streams of data required for ATV.

12. Locating all full-service ATV stations totally within the UHF band will of course require that several channels above channel 51 continue to be reserved for TV broadcasting, perhaps channels 52 through 58 or 60. As will be discussed later in these comments, a few additional channels should be reserved for the exclusive use of LPTV and TV translator stations with LPTV having priority over translators.

Relative Power Levels Proposed for ATV Transmission

13. Holston believes the criteria the Commission has used in its draft table of assignments in an effort to replicate existing NTSC coverage areas are flawed, particularly in terrain-limited coverage situations.

14. Holston's WKPT-TV, channel 19, currently operates with maximum radiated power of 1,255 kilowatts. Under the Commission's current rules maximum power for WKPT-TV at its radiation point 2,320 feet above average terrain, is only 3,890 kilowatts. Traditional engineering wisdom has indicated that more power than is now utilized in the terrain-limited coverage situation WKPT-TV faces in its topographically rugged market deep in the Appalachian mountains would not likely be cost effective.

15. WKPT-TV's most formidable competitor, WCYB-TV, channel 5, Bristol, VA, transmits from the same mountain at some 2,230 feet above average terrain with radiated power of 83.2 kilowatts, the

maximum allowed at that height.

16. In the Commission's proposed table of allocations, WKPT-TV's ATV assignment is channel 20 while WCYB-TV is tentatively assigned channel 23. WKPT-TV's proposed power level is a mere 76.3 kilowatts while WCYB's is an astounding 3,131.7 kilowatts! Undoubtedly this gargantuan disparity results from the Commission's effort to replicate WCYB-TV's present predicted channel 5 Grade B contour, which extends some fifteen miles further than WKPT-TV's. WCYB-TV is thus tentatively assigned a power level over 41 times as great as WKPT-TV's. That's over 16 decibels more signal for WCYB-TV than for WKPT-TV.

17. On the surface the high power tentatively assigned to WCYB-TV's ATV operation would appear to sustain the existing competitive advantage which that station has traditionally enjoyed. In actual fact even this "mega-power" will not replicate WCYB-TV's existing VHF coverage area, and should WCYB-TV choose to construct a three million-plus watt facility, it will have achieved little more than a wastefully-expensive capital project, which will generate a very large power bill each month.

18. WKPT-TV, on the other hand, will enjoy the luxury of a very small power bill and a very much smaller capital investment; however, its radiated power ----- less than that achieved by

some UHF LPTV stations today ----- will be so tiny that even its existing less-than-ideal competitive position will be threatened.

19. Meanwhile, WKPT-TV's other major competitor, WJHL-TV, channel 11; Johnson City, TN, which also transmits from the same mountain at 2,320 feet above average terrain utilizing the NTSC maximum allowed power for its height, 245 kilowatts, has been assigned VHF channel 12 in the Commission's proposed ATV table of assignments with a mere 8.1 kilowatts of radiated power. Its ATV transmissions will likely suffer from the VHF impulse noise described earlier herein.

20. In truth Holston believes the assignment of UHF ATV channels to all three stations with moderate power levels of perhaps 1,000 kilowatts will achieve pretty much the practical maximum coverage of this terrain-limited marketplace at reasonable capital and operational cost to all stations. Such a policy would eliminate the tremendous interference areas, which would be created by those DTV stations the Commission now proposes to allow to operate with super-power in an effort to replicate their former VHF coverage. This will make possible more efficient re-use of the same spectrum in other nearby markets both by other full-service stations and by LPTV and translator stations, which might otherwise be totally displaced.

21. The history of broadcast television in the United States since the creation of the original Table of Assignments in 1952 following the great "freeze" is replete with various Commission proceedings designed to foster and protect UHF service and UHF stations and to achieve greater parity between UHF stations and their VHF competitors. Nevertheless, in mountainous markets such as Holston's the typical antenna-equipped viewer (i.e. non-subscriber to cable) watches only the VHF stations.

22. In most other markets as well, especially those characterized by exceptionally rugged terrain, UHF stations generally remain in competitive positions inferior to those of their VHF competitors, despite all of the Commission's efforts to foster UHF. The only markets in which there is true parity among all stations are in those so-called "de-intermixed" markets in which all stations transmit on the UHF band. In the transition to ATV the Commission has one final opportunity to eliminate this disparity once and for all by in effect "de-intermixing" all television markets.

23. The engineers with whom we've communicated including our longtime friend and consultant Jules Cohen, who has been intimately involved in ATV development and testing, believe that the Charlotte tests, while fairly complete, provide insufficient data on which to make final decisions as to the appropriate power levels for ATV stations. More experience in actual practice in

the field is required in order to provide truly adequate data.

24. Holston believes that specific maximum power and height combinations should be established for each band (if the Commission insists upon assigning some ATV stations VHF spectrum) or band segment. This will allow stations to begin ATV operation at more modest power levels and log experience at those levels while preserving their right to increase power and height to the allowed maximum just as they have always been able to do in the NTSC analog world.

LPTV and Translator Stations

25. LPTV is the Commission's brain-child. When the service was created in 1982, it was touted as a way to achieve greater diversity of both programming and ownership. Thousands of applicants have competed for LPTV stations and some 1,800 LPTV stations now authorized, several hundred of which truly originate programming and provide broadcast schedules in most ways comparable to those of typical independent full service TV stations. Many are operated by licensees, which are members of or are owned by members of various racial and ethnic minorities and/or by women.

26. Holston built its first LPTV station in 1991 and a second in 1994. Both originate their own programming. Since then it has converted three existing translators to LPTV service. Among the

programs Holston has aired on its LPTV facilities are local news, live broadcasts of local parades and local sports events, and meetings of local governmental bodies. Holston's WAPK-LP, channel 30, is the market's UPN Network affiliate and has achieved carriage on some 15 cable systems. It appears in the A.C. Nielsen ratings to which it subscribes (and in which on occasion it has achieved a greater estimated audience than the local full service Fox affiliate), and its program schedule is listed in all area newspapers and in TV Guide magazine.

27. It is inconceivable to Holston that after fostering the growth of this service as it has over the past fourteen years, the Commission would take any action, which would in effect put a large percentage of the nation's LPTV stations out of business, squelching those efforts and rendering useless the financial investments of hundreds of licensees while at the same time taking from the public valuable free television services they have now long enjoyed and upon which they have relied for news, information, entertainment, and other valuable programming.

28. Holston strongly believes that "originating" LPTV stations should be given primary status and should be subjected to essentially all of the same rules as full service television stations except for the multiple ownership rule. As in the case of Holston, allowing the licensee to own both one or more LPTV stations and a full service TV and/or radio stations in the same

local market has allowed such licensees to provide vastly greater programming diversity to the public at no cost to that public.

29. Television channels 14-69 have been allocated to broadcast television since 1952. When UHF channels 70-83 were re-allocated to land mobile use, there were vastly fewer full service UHF stations than exist today, no LPTV stations, and many fewer translators than now exist. Given the history of LPTV's development, the allocation of perhaps four UHF channels for the exclusive primary use of LPTV stations and the secondary use of TV translator stations is appropriate and is good public policy.

30. Logically these channels on which no full service TV stations would be allowed to operate could be just above the upper edge of whatever portion of the present UHF TV band remains assigned to full service stations. As the Commission has suggested, such channels would provide a "buffer" between higher-powered full service television stations and the land mobile services, which typically operate at much lower power levels.

31. Carrying this theory further, a further suggestion would be to allocate UHF channels 14 and 15 exclusively for LPTV and translator use plus the first two UHF channels adjacent to the upper edge of the band assigned to full service TV stations. In this manner a similar "buffer" would be created between low power land mobile transmitters operating just below channel 14 and the

high-powered full service TV stations which would then operate on channels 16 and above.

32. The Commission has expended considerable time and effort to construct its presently proposed ATV/NTSC table of allocations. Given its encouragement of the LPTV service through the years, the service LPTV provides to the viewing public, and the investment the LPTV industry has made, the Commission should utilize its auspices and facilities to create another table which makes allowance for the undiminished continuation of LPTV service, a table which will not require the demise of many existing LPTV stations.

33. In noting above that translators should retain secondary status and be allowed on that basis throughout whatever UHF spectum remains allocated for full service or LPTV use, Holston believes it is important to have further investigation as to the degree that in the DTV world, "on-channel boosters" may be able to replace a number of the almost 7,300 translators currently authorized. As we understand the technology, the multi-path or "ghosting" effects which so often preclude the use of on-channel boosters and thus instead lead to the use of translators, will be greatly diminished once signals are transmitted digitally. It is hoped, therefore, that the potential displacement problem for translators may not be as great as originally anticipated. Further, as the Commission has noted in the instant Notice, most

existing translators are located in more rural areas.

Conclusion

34. Holston believes that all ATV stations should operate in the UHF band both during the transition period and following the transition and proposed re-packing of the television spectrum. This would avoid the impulse noise common on VHF frequencies and the problems such noise creates for ATV.

35. Holston believes that maximum powers and heights for ATV operation in each band or band segment assigned for ATV should be established in much the same way they were established decades ago for NTSC transmission. Such a policy will assure maximum service to the public without unduly favoring some ATV operators just because their old NTSC assignment was a VHF channel.

36. Taking the actions set forth above will be the ultimate and final "de-intermixing" of full service television broadcasting in the United States and will bring about once and for all true parity among full service TV broadcasters regardless of whether their roots lie in VHF or UHF.

37. Holston believes the proposed cavalier stab to the heart of the LPTV industry, which the Commission created and has fostered for fourteen years, must not be delivered and that in order to preserve LPTV service the Commission should give LPTV stations

primary status on at least four UHF channels, channels to which no full service stations would be assigned. Both LPTV stations and translators should be allowed secondary status on the other UHF channels which remain available for full service stations. Translators should also have secondary status on the four UHF channels on which LPTV stations have primary status.

Respectfully submitted,

HOLSTON VALLEY BROADCASTING CORPORATION

By: _____
George E. DeVault, Jr.
Its President